

VALDOSTA STATE UNIVERSITY BIOLOGY DEPARTMENT ANIMAL BEHAVIOR SYLLABUS BIOL 4650/6650 – Fall 2024

Instructor Name: Emily Rose, Ph.D.

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Office Location: Bailey Science Building 2211

*Office Hours: Monday 10am-12pm & 2:30-3:30pm, Thursday 9:30am -11:30pm
and by appointment, email for arranging virtual meetings with Zoom [link](#)*

Lecture & Lab location: Bailey Science Center 2202 (Lecture) and 1043 (Lab)

Lecture times: Tuesday & Thursday 3:30-4:45pm

Lab time: Thursday 12:30pm-3:20pm

Course Overview:

BIOL 4650/6650 Animal Behavior. 4 Hours. Prerequisites: BIOL 1107, 1107L, BIOL 1108, 1108L, BIOL 3250 and BIOL 3200. Introduction to the major concepts of causation, development, evolution, and ecology of animal behavior, emphasizing the behavior of social animals.

Required Materials:

Textbook: Animal Behavior: Concepts, Methods, and Applications 3rd Edition by Nordell and Valone, Oxford University Press

Excel- Provided by VSU through your email account

Free online computer programs: ImageJ and BORIS

Tentative Plan for the Course Format:

We will be meeting face-to-face for lecture and labs. We will have several labs that will include fieldwork outside. Students will be required to have access to Excel either on their own machines, in a computer lab or by remote accessing the lab computers to complete assignments. If there are changes to the course format you will be notified by Dr. Rose via email and announcements on BlazeVIEW, in addition to the official University emails. If you are unable to attend class in person due to illness, you are responsible for contacting Dr. Rose directly to make arrangements. Online accommodations will only be made for students who have VSU approval.

Course Learning Objectives:

This course covers a wide range of topics within the realm of animal behavior and allows student to develop their own ideas through an experiential learning process. The laboratory portion offers students the opportunity to get directly involved with experimentation and techniques for studying animal behaviors. Students will demonstrate understanding of the scientific principles that relate to the study of animal behavior in an evolutionary context, including

- a. The neural and hormonal control of behavior and the genetic basis of behavior
- b. Optimal foraging behavior and predator-prey dynamics
- c. The behaviors associated with migration and territoriality
- d. The evolution of communication from perspectives of both signaler and receiver
- e. Reproductive behaviors, including differences in sex roles, mating systems, and care of offspring
- f. Social behaviors, such as altruism and reciprocity

Skills will be gained through:

- a. Lectures and discussion of papers from the primary literature
- b. Presentation and discussion of research articles throughout the course
- c. Preparation of an experiment for an area of behavior/organism/system of your choosing with thorough well-developed hypotheses, experimental design, expected results, and thorough literature review.
- d. Participation in laboratory exercises that explore topics from lecture that we will investigate in more detail.
- e. Communicate effectively about behavioral topics in both oral and written form, reinforced through data analysis and writing assignments throughout the course.

These course objectives are aimed to fulfill the VSU General Educational outcomes 3,4,5 and 7.

This course's set of learning objectives support the outcomes 1, 2 and 5 of the [VSU Selected Educational Outcomes for the B.S. Degree in Biology](#).

Lecture & Lab Policies: Guidelines for your safety and the safety of those around you.

1. No eating or drinking in the lecture or lab.
2. Know where emergency/first aid equipment and disposal receptacles are for lab. Any injuries should be reported to me immediately!
3. Please dress appropriately for field days. I recommend comfortable closed-toed shoes or water shoes if appropriate for the specific lab, always have drinking water, and some will want to bring sunscreen and/or bug repellent. In addition, fieldtrips are often hot or cold (depending on the time of semester) and may require walking to a destination, so you should dress accordingly.
4. Please treat the organisms for research with respect. If you are not following instructions or misusing the animals you will be given a 0 for the assignment.
5. Although we are using a lot of technology for our class, please avoid using your phones or computers for anything else during our class time. We have a lot of focus on and juggle so you need to be 100% committed and focused to the course during your 5.5 hours with me each week. Recordings of the Dr. Rose's lectures are not permitted without her permission.

Grade Determination:

Assessment	Points	<u>Grading Scale:</u>
Participation in Lab and Lecture	30	≥ 900 pts, A 800-899, B 700-799, C 600-699, D <600 pts, F
Major Lab assignments: Beta Fish Project Paper (75), End of Semester Project poster ppt file (75), Poster peer review (20), Poster presentation (20)	190	
Discussion ppt/preparation (30), Discussion Presentation (30)	60	
Exam 1,2,3,4 (150pts each)	600	
Laboratory Homework Assignments	120	
Total Points	1000	

Participation: Points for participation will be given based on your preparedness and your contribution to the lecture, lab activities and paper discussions. This includes participating in the lecture discussions and also your level of helping to collect the data and work as a team member during the lab assignments. I will be taking attendance for all of our class meetings and points will be deducted for students who are chronically late or missing class. If you are not prepared for class or are disrespectful to your fellow classmates or professor you will lose participation points.

Lecture and Lab assignments: For most lab exercises, you will be required to perform graphing/data analysis and/or writing assignments. Some of these you will complete in lab while others will require additional work after lab. These assignments will be explained in detail during lab, and due as noted on Blazeview. Instructions on how to turn in the assignment will be explained when the assignment is given (primarily submitted via the Blazeview assignments link, completed in a google folder, etc.). I reserve the right to adjust the evaluation criteria in the event of extenuating circumstances. There will be publications provided that require you to contribute discussions and answer questions during class.

Discussion assignments: You are responsible for coordinating the meeting for you and your partner with Dr. Rose/the assigned graduate student the week before your discussion to review your powerpoint outlining the paper and a list of discussion questions to guide the class for the discussion. After your meeting, both partners will submit the same ppt to be used for class. After the discussion, each partner will submit a 300 word reflection of how the discussion went, what the class understood or did not grasp, and two potential exam questions that best reflect the take home theme of the discussion.

Exams: All lecture exams will be closed note on dates stated in the schedule below.

Make-Up Work: Late assignments will be **not be accepted** and make up assignments will be at the sole discretion of the professor. These assignments may or may not exactly duplicate the original and will not entitle other students to the same alternatives since they may not have experienced the same situations.

Course Policies:

Non-Discrimination and Title IX Statement

Valdosta State University (VSU) upholds all applicable laws and policies regarding discrimination on the basis of race, color, sex (including sexual harassment and pregnancy), sexual orientation, gender identity or expression, national origin, religion, age, veteran status, political affiliation, or disability. The University prohibits specific forms of behavior that violate Title IX of the Education Amendments of 1972. Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in education programs and activities that receive federal funding. VSU considers sex discrimination in any form to be a serious offense. Title IX refers to all forms of sex discrimination committed against others, including but not limited to: sexual harassment, sexual assault, sexual misconduct, and sexual violence by other employees, students or third parties and gender inequity or unfair treatment based on an individual's sex/gender. The designated Title IX Coordinator for VSU is Ms. Selenseia Holmes. To view the full policy or to report an incident visit: <https://www.valdosta.edu/administration/student-affairs/title-ix/>. Dr. Rose's course is a safe space for students where you will be treated with respect and are expected to respect others. Individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences, are welcome and deserve to be treated equally.

Academic Integrity Statement

Cheating, plagiarism, copying and any other behavior that is contrary to University standards of behavior will not be tolerated (Academic Honesty Policies and Procedures). Students caught violating any aspect of the Academic Integrity Code will be penalized in all cases. Penalty ranges from "0" on an assignment to "F" for the course without regard to a student's accumulated points. Students may also face expulsion. It is the student's responsibility to become familiar with the policies of the university regarding academic integrity and to avoid violating such policies. VSU's Academic Student Conduct Code states that "no student shall engage in plagiarism, which is presenting the words or ideas of another person as if they were the student's own." Students are not allowed to turn in assignments from other students or their own assignments from previous semesters. Content generated by an Artificial Intelligence third-party service or site (AI-generated content) is another form of plagiarism. If you are unsure about whether something may be plagiarism or another form of academic dishonesty, please reach out to me as soon as possible. By taking this course, you agree that all required course work may be subject to submission for textual similarity review to Turnitin, a tool within BlazeVIEW. For more information on the use of Turnitin at VSU see Turnitin for Students.

Students with Disabilities

Students with disabilities who are experiencing barriers in this course may contact the Access Office (<https://www.valdosta.edu/student/disability/>) for assistance in determining and implementing reasonable accommodations. The Access Office is located in University Center Room 4136 Entrance 5. The phone numbers are 229-245-2498 (V), 229-375-5871. For more information, please visit VSU's Access Office or email: access@valdosta.edu. To request reasonable accommodations for pregnancy and childbirth, contact Ms. Myia Miller, Title IX Compliance Officer, at maburden@valdosta.edu. Please note, you will be required to provide documentation from an appropriately licensed medical professional indicating the requested accommodations are medically necessary.

Additional Academic Support

The Academic Support Center (ASC) provides unlimited, in-person, free peer tutoring in core courses such as math, English/writing, sciences, social sciences, and languages. We also offer 8 hours of free online tutoring via Tutor.com (8 hours per student, available 24/7). Click the Free Tutoring link in any Blazeview course to make appointments. Please drop by our space in Odum Library, 2nd floor, or call 229-333-7570, email asc@valdosta.edu, or visit the website www.valdosta.edu/asc for more information. We will have a PAL for the course that will offer biweekly sessions for extra help with the course material. The meeting times will be voted on by the class and posted on the course's BlazeView page.

Experiential Learning Statement

This course includes an Experiential Learning opportunity carefully designed to allow students to explore concepts, skills, and principles beyond the traditional classroom, lab, or studio. Students will have opportunities to make connections across campus, collaborate with others, and apply and synthesize what they have studied in the course. In addition to the experience, students reflect on what they have learned during and at the completion of the course/activity to deepen their learning. Reflections help students transfer skills and concepts to different contexts including 'real-world' settings. For more information about Experiential Learning please visit <https://qep.valdosta.edu/experiential-learning/>.

Mental Health Awareness

As a student, you may experience a range of challenges that can interfere with learning, such as strained or violent relationships, death and loss, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. VSU services are available and treatment does work. You can learn more about confidential mental health services available on campus at: <http://www.valdosta.edu/student/student-services/counseling-center/>. 24 hour emergency help is also available through the University Police at 229-259-5555 who will contact on-call counselors or appropriate resources for support.

Student Opinion of Instruction Statement

At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available through SmartEvals. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous to instructors/administrators, and they will be able to access results only after they have submitted final grades. Before final grade submission, instructors will not be able to see any responses, but they can see the percentage of students who have or have not completed their SOIs. While instructors will not be able to see student names, an automated system will send a reminder email to those who have yet to complete their SOIs. Students who withdraw or drop a course will also be sent invitations to complete the Dropped Course Survey. Complete information about the SOIs, including how to access the survey, is available on the [SOI Procedures webpage](#).

Fall 2024- Dr. Rose's Animal Behavior course (BIOL 4650/6650)

Note: The professor reserves the right to make changes to this syllabus as necessary.

Week 1	<p><u>Monday 8/19</u></p> <p>-Introductions & Syllabus -Chapter 1: The Science of Animal Behavior</p>	<p><u>Wednesday 8/21</u></p> <p>-Finish Chapter 1 -<u>Lab 1:</u> Ethograms Part I and Design experiment for HW/Lab 2 -homework: collect data for next week's lab submit lab HW1 (10) via blazeview link by Monday at midnight</p>
Week 2	<p><u>Monday 8/26</u></p> <p>- Chapter 2: Methods for Studying Animal Behavior</p>	<p><u>Wednesday 8/28</u></p> <p>- Chapter 3: Evolution and the Study of Animal Behavior -<u>Lab 2:</u> Graphing and Data interpretation -Students choose pairs and sign up for papers -Homework: read paper for Dr. Rose discussion, submit lab HW2 (10) via blazeview link by Monday midnight</p>
Week 3	<p><u>Monday 9/2</u> <u>Labor Day- no classes</u></p>	<p><u>Wednesday 9/4</u></p> <p>- Chapter 4: Behavioral Genetics -<i>Discussion:</i> Led By Dr. Rose- Betta fish</p>
Week 4	<p><u>Monday 9/9</u></p> <p>-Exam 1 (Chapters 1,2,3,4 and Rose paper discussion)</p>	<p><u>Wednesday 9/11</u></p> <p>-Chapter 12: Mating Behavior -<u>Lab 3:</u> Beta Fish Part I & Image J (design ethograms & measurements) -Homework: read paper for discussion 1, submit lab HW3 (10)</p>
Week 5	<p><u>Monday 9/16</u></p> <p>Chapter 13: Mating Systems</p>	<p><u>Wednesday 9/18</u></p> <p>-<i>Discussion 1: clownfish</i> -<u>Lab 4:</u> Beta Fish Part II- Habitat preference behaviors -Homework: read paper for discussion 2, submit lab HW4 (10)</p>
Week 6	<p><u>Monday 9/23</u></p> <p>- <i>Discussion 2: pipefish</i></p>	<p><u>Wednesday 9/25</u></p> <p>- Chapter 14: Parental Care - <u>Lab 5:</u> Beta Fish Part III: Intra/Intersexual behaviors -Homework: read paper for discussion 3, submit lab HW5 (10), turn in ideas/requests for supplies for Betta Fish Part IV</p>
Week 7	<p><u>Monday 9/30</u></p> <p>- <i>Discussion 3: fireflies</i></p>	<p><u>Wednesday 10/2</u></p> <p>-<u>Lab 6:</u> Bird Lab at Suwannee River State Park -Homework: submit results from lab for HW6 (20)</p>
Week 8	<p><u>Monday 10/7</u></p> <p>-Exam 2 (Chapters 12,13,14 and Discussion 1, 2, & 3)</p>	<p><u>Wednesday 10/9</u></p> <p>Chapter 5: Sensory Systems and Behavior -<u>Lab 7:</u> Beta Fish Part IV: Choose your own adventure -Homework: read paper for discussion 4 & submit HW7 (10)</p>
Week 9	<p><u>Monday 10/14</u></p> <p>FALL BREAK – no classes</p>	<p><u>Wednesday 10/16</u></p> <p>-Chapter 6: Communication -<i>Discussion 4: Bees</i> -Homework: Beta Fish paper (75) -Due 10/21/24, read paper for discussion 5</p>
Week 10	<p><u>Monday 10/21</u></p> <p>-Chapter 8: Foraging Behavior</p>	<p><u>Wednesday 10/23</u></p> <p>-Chapter 9: Antipredator Behavior -<i>Discussion 5: Birds</i> -<u>Lab 8:</u> Start brainstorming project ideas- start ordering supplies. -Homework: turn in your project ideas for HW8 (10) by 10/30.</p>

Week 11	<u>Monday 10/28</u> -Exam 3 (Chapters 5,6,8,9 and Discussion 4 & 5)	<u>Wednesday 10/30</u> -Chapter 10: Dispersal and Migration - <i>Discussion 6: Lynx</i> - <u>Lab 9:</u> Finalize Independent Research Experiments and plan field trips for Lab 10, get papers for annotated bibliography. -Homework: Upload 4 papers and Annotated Bibliography for your Independent Research Experiment topic for HW9 (20) by 11/11.
Week 12	<u>Monday 11/4</u> -Chapter 11: Habitat Selection, Territoriality, and Aggression	<u>Wednesday 11/6</u> - <u>Lab 10:</u> Research Day and potential field trip to local sites for data collection for Independent Research Experiments. Groups who choose projects at further locations will occur on the weekends. -Homework: Collect data for Independent Research Project.
Week 13	<u>Monday 11/11</u> - <i>Discussion 7: Seals</i>	<u>Wednesday 11/13</u> - Chapter 15: Sociality - <i>Discussion 8: Voles</i> - <u>Lab 11:</u> Complete data collection and analyses -Homework: Turn in your data analysis and figures with figure captions for HW10 (10) before meeting with TA next week.
Week 14	<u>Monday 11/18</u> - Chapter 16: Cooperative Behavior	<u>Wednesday 11/20</u> - <u>Lab 12:</u> Final Project data analysis and begin poster assembly -Homework: Schedule a meeting with TAs to go over your data.
Week 15	<u>Monday 11/25</u> -Poster prep day	<u>Wednesday 11/27</u> THANKSGIVING BREAK- no classes
Week 16	<u>Monday 12/2</u> -Exam 4 (Chapters 10, 11, 15 & 16, and Discussion 6, 7, & 8)	<u>Wednesday 12/4</u> - <u>Lab 13:</u> Practice presentations of posters -Homework: Turn in abstract (150-200 words) and final poster (75) for printing by end of class.
Finals	<u>Monday 12/9</u> POSTER PRESENTATION DAY!!	<u>Wednesday 12/11</u> -Homework: Turn in peer review (20) of posters.